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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,496	10/18/2001	Ryszard Sprycha	C-411	7480
25900	7590	02/20/2004	EXAMINER	
SUN CHEMICAL COPORATION 222 BRIDGE PLAZA SOUTH FORT LEE, NJ 07024			SHOSHO, CALLIE E	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,496

Applicant(s)

SPRYCHA ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-29 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. All outstanding rejections are overcome by applicants' amendment filed 11/24/03.

The new grounds of rejection as set forth below are necessitated by applicants' amendment and thus, the following action is final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 3 have been amended to recite "non-fluorescent" pigment while newly added claim 29 recites the same claim language. However, the cited phraseology clearly signifies a "negative" or "exclusionary" limitation for which the applicants have no support in the original disclosure. Negative limitations in a claim which do not appear in the specification as filed introduce new concepts and violate the description requirement of 35 USC 112, first paragraph, *Ex Parte Grasselli, Suresh, and Miller*, 231 USPQ 393, 394 (Bd. Pat. App. and Inter. 1983); 783 F. 2d 453. Applicant has not pointed to any portion of the specification, and examiner has not found any support for this phraseology in the specification as originally filed.

The insertion of the above phraseology “non-fluorescent” positively excludes fluorescent pigments, however, there is no support in the present specification for such exclusion. While the present specification is silent with respect to the use of fluorescent pigments, is noted that as stated in MPEP 2173.05(i), the “mere absence of a positive recitation is not the basis for an exclusion.”

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-2, 4-8, 15-16, 18-22, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhu (U.S. 6,251,175) taken in view of the evidence in either EP 1219462 or Wexler (U.S. 6,454,896).

Zhu discloses non-aqueous ink comprising polyamide, solvent such as ethanol, up to 2% ammonium hydroxide, and pigment (col.3, lines 9-10, 13, and 30, col.4, line 10, col.5, line 34, and col.7, lines 22 and 28-30,).

Although there is no disclosure that using ammonium hydroxide in the ink results in increase in stability and resolubility of the ink, given that Zhu disclose ink identical to that presently claimed including base as presently claimed, it is clear that the use of ammonium hydroxide in the ink will inherently result in increase in stability and resolubility.

Further, although there is no disclosure in Zhu that the ink is a lamination ink, it is well known, as evidenced by either EP 1219462 (paragraph 5) or Wexler (col.1, lines 39-40), that ink jet inks can in fact be laminated and thus, function as lamination inks.

In light of the above, it is clear that Zhu anticipates the present claims.

6. Claims 1, 3-10, 12-13, 15, 17-24, and 26-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Trauernicht et al. (U.S. 6,247,801) taken in view of the evidence in either EP 1219462 or Wexler (U.S. 6,454,896).

Trauernicht et al. disclose non-aqueous ink comprising resin, organic solvent which is ethanol or propanol, pigment such as carbon black or phthalocyanine, and 0.1-10% pH control agent including sulfuric acid, acetic acid, hydrochloric acid, alkali metal hydroxide, and triethanolamine (col.2, lines 29-33, col.3, lines 59-60, col.4, lines 10-13 and 47-50, and col.5, lines 7-20).

Although there is no disclosure that using acid or base in the ink results in increase in stability and resolubility of the ink, given that Trauernicht et al. disclose ink identical to that presently claimed including acid and base as presently claimed, it is clear that the use of such acid and base in the ink will inherently result in increase in stability and resolubility.

Further, although there is no disclosure in Trauernicht et al. that the ink is a lamination ink, it is well known, as evidenced by either EP 1219462 (paragraph 5) or Wexler (col.1, lines 39-40), that ink jet inks can in fact be laminated and thus, function as lamination inks.

In light of the above, it is clear that Trauernicht et al. anticipates the present claims.

7. Claims 1-3, 5, 7-10, 15-17, 19, 21-24, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Mead et al. (U.S. 5,596,027) taken in view of the evidence in either EP 1219462 or Wexler (U.S. 6,454,896).

Mead et al. disclose non-aqueous ink comprising polyamide, pigment such as monoarylide yellow, diarylide yellow, lithol rubine, phthalocyanine, and carbon black, and 2-15% sodium hydroxide, potassium hydroxide, ammonium hydroxide, ethanolamine, triethanolamine, and dimethylethanolamine (col.4, lines 36-37, col.7, lines 12-39, col.9, lines 50-51, col.10, line 21, and col.12, lines 26-31 and 40-44).

Although there is no disclosure that using base in the ink results in increase in stability and resolubility of the ink, given that Mead et al. disclose ink identical to that presently claimed including base as presently claimed, it is clear that the use of such base in the ink will inherently result in increase in stability and resolubility.

Further, although there is no disclosure in Mead et al. that the ink is a lamination ink, it is well known, as evidenced by either EP 1219462 (paragraph 5) or Wexler (col.1, lines 39-40), that ink jet inks can in fact be laminated and thus, function as lamination inks.

In light of the above, it is clear that Mead et al. anticipates the present claims.

8. Claims 1, 11, 15, 23, 25, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. (U.S. 5,922,118) taken in view of the evidence in either EP 1219462 or Wexler (U.S. 6,454,896).

Johnson et al. disclose nonaqueous ink comprising pigment, solvent, resin (binder), and aminoalcohol which clearly encompasses the specific aminoalcohols presently claimed (col.10, lines 47-49 and col.12, lines 29 and 42)

Although there is no disclosure that using aminoalcohol in the ink results in increase in stability and resolubility of the ink, given that Johnson et al. disclose ink identical to that presently claimed including aminoalcohol as presently claimed, it is clear that the use of such aminoalcohol in the ink will inherently result in increase in stability and resolubility.

Further, although there is no disclosure in Johnson et al. that the ink is a lamination ink, it is well known, as evidenced by either EP 1219462 (paragraph 5) or Wexler (col.1, lines 39-40), that ink jet inks can in fact be laminated and thus, function as lamination inks.

In light of the above, it is clear that Johnson et al. anticipates the present claims.

Response to Arguments

9. Applicants' arguments regarding Nowak et al. (U.S. 6,425,948) have been considered but they are moot in view of the discontinuation of this reference against the present claims.

10. Applicants' arguments filed 11/24/04 have been fully considered but, with the exception of arguments relating to Nowak et al., they are not persuasive.

Specifically, applicants argue that none of the references cited by the examiner are applicable against the present claims given that each of the references is drawn to ink jet inks while the present claims are drawn to lamination inks.

Applicants argue that ink jet printing is a non-contact printing technique requiring the inks have very low viscosity (approximately 4 cP) while lamination printing is a contact printing technique requiring the ink to have relatively higher viscosity (10 to 50 cP). Applicants further argue that a lamination ink cannot be used in ink jet applications since the ink would not pass through the printer nozzles due to its high viscosity while ink jet ink cannot be used as lamination ink since the low viscosity would prevent efficient transfer of ink through the inking train and ultimately to the substrate and the ink jet ink would not possess the mechanical properties necessary.

However, by applicants own admission, lamination printing occurs when an ink is printed on a base film which film in turn is laminated with another dissimilar film to form a structure in which the dried ink film is disposed between two film plies.

Thus, it is not clear how the method in which the ink is applied to the substrate, i.e. ink jet printing versus flexographic or gravure printing, would effect the inks ability to become laminated. It would appear that how the ink is applied to the substrate would not effect if the ink is able to be laminated.

Further, applicants argue that ink jet inks are not suitable for lamination printing given that the viscosity of ink jet inks is too low. As evidence to support this position, applicants point to page 683 of *The Printing Ink Manual*. However, this portion of *The Printing Ink Manual* discloses viscosity for solvent-based ink used in one specific type of ink jet printing, i.e. continuous ink jet printing. As set forth on page 696 of *The Printing Ink Manual*, inks for piezo or bubble jet ink jet printing possess viscosity of up to 20 cP. This is also supported, for instance, by Trauernicht et al. (U.S. 6,247,801), which disclose solvent-based ink jet ink with viscosity of

0.5-50 cP (col.2, lines 23-25). It is noted that these values for viscosity for ink jet inks overlap applicants disclosure of the "relatively higher viscosity" required for lamination inks and thus, it appears that ink jet inks do possess viscosity required of lamination inks.

Applicants also argue that ink jet inks cannot function as lamination ink given that the ink jet ink would not possess the necessary mechanical properties. However, it is well known, as evidenced by either EP 1219462 or Wexler, that ink jet inks can in fact be laminated. Wexler (col.4, lines 22-25) disclose that the ink jet inks used to prepare the images to be laminated are well known in the art and cites some prior art disclosing such ink jet inks. It is noted that two of the cited references, i.e. Uechara (U.S. 4,381,946) and Beasley (U.S. 4,239,543), both disclose ink jet inks possessing viscosity of 2-20 cP. Thus, it appears that inks with low viscosity are suitable for use as lamination inks.

Applicants also argue that lamination printing is a contact printing technique as ink must travel through flexographic or gravure printing process inking train and is subject to dynamic forces before actual printing on the substrate. However, it is noted that the present claims are drawn to lamination ink composition, not method of flexographic or gravure ink. The present claims only require a lamination ink, i.e. ink which can be laminated.

Given that each of the cited references discloses ink identical to that presently claimed and in light of the disclosure in either EP 1219462 or Wexler that ink jet inks can function as lamination inks, it is clear that the cited references meet the limitations of the present claims.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

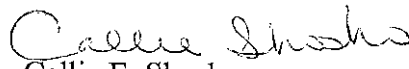
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
2/13/04